Postdoc position:

2D infrared spectroscopy & matrix isolation spectroscopy

A 2-years postdoctoral position in the field of infrared multidimensional spectroscopy will be available at *Institut des Sciences Moléculaires d'Orsay ISMO*, *Paris-Sud University*, *Paris-Saclay*, France (Dr Wutharath Chin and Dr Claudine Crépin). The candidate should ideally start by January 2019.

Keywords: ultrafast dynamics; multidimensional infrared spectroscopy; cryogenic matrices; atmospheric clusters; hydrogen bonding

Research project: Resolving the structure and the dynamical behavior of molecular assemblies is a challenge that can be addressed thanks to multidimensional spectroscopy. Conformational selectivity through complexation is a key issue in the formation of atmospheric clusters. This project aims at developing a new multidimensional spectroscopy setup to understand the role of hydrogen-bonding and conformational change in clusters of atmospheric acids and bring information on the early steps of nucleation, named *new particle formation* that occurs at the molecular scale. The goal is to explore mode selectivity upon complexation and how vibrational dynamics is influenced. The position includes some aspects of finalizing the bidimensional IR spectroscopy setup and matrix isolation spectroscopy with clusters of carboxylic acids.

Profile: Candidates must hold, by the date of appointment (January 2019), a PhD in physics or chemical physics for no more than 5 years. Good knowledge in basic molecular and optical physics, laser spectroscopy, high vacuum is required. Experience in multidimensional spectroscopy, nonlinear optics and background in quantum chemistry (electronic structure, etc.) are appreciated.

Location: Université Paris-Sud/Paris Saclay, Orsay, approx. 20km south of Paris.

Salary: Net monthly salary (including state health benefits): ≥ 2500 €, depending on experience. ANR funding.

Applications should be sent by email, including a cover letter, CV, and names and addresses of two referees who would write a letter of recommendation.

For further information please contact Dr Wutharath Chin (wutharath.chin@u-psud.fr)